



Innovation Capability and Modernization (ICAM) Office



Industrial Base Analysis and Sustainment (IBAS) Program

PE: 0607210D8Z

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CLEARED
For Open Publication

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Department of Defense
OFFICE OF PREPUBLICATION AND SECURITY REVIEW



ICAM - Who We Are and What We Do

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- Team of **highly agile, deep generalists, passionate** about the U.S. industrial base
- Partner of first choice – **earn and keep trust** of those we work with
- Leverage **broad, powerful** authorities to manage and execute the IBAS Program
- Catalyze and inspire to **stimulate and amplify** investments that bring value
- ***Sustain, Expand, and Create opportunities for Industrial Base Policy across:***
 - Traditional technology lines of effort; e.g.

- Batteries/storage
- Castings & forgings
- Critical chemicals
- Kinetics
- Microelectronics

 Human Capital / Workforce	 Markets constrained, fragile, and emerging
 Infrastructure Capitalization modernize, sustain, and expand	 Mitigate Sourcing Risks foreign, sole, and single sources plus product security

- Ungoverned and large, cross-cutting spaces (help “bring order to chaos”); e.g.,
 - Workforce: National Imperative for Industrial Skills (NIIS)
 - ACE – America’s Cutting Edge – DoD/Dep’t of Energy Machine Tool Partnership
 - Radar sub-tier resiliency
 - Capital/equity markets

Help IBP build supply chain reliability and resiliency through workforce development and other industrial capacity initiatives that align to, and mitigate EO 14017 challenges and risks



Office of Industrial Base Policy (IBP)

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IBP Mission: Work with domestic and international partners to forge and sustain a robust, secure, and resilient industrial base enabling the warfighter, now and in the future



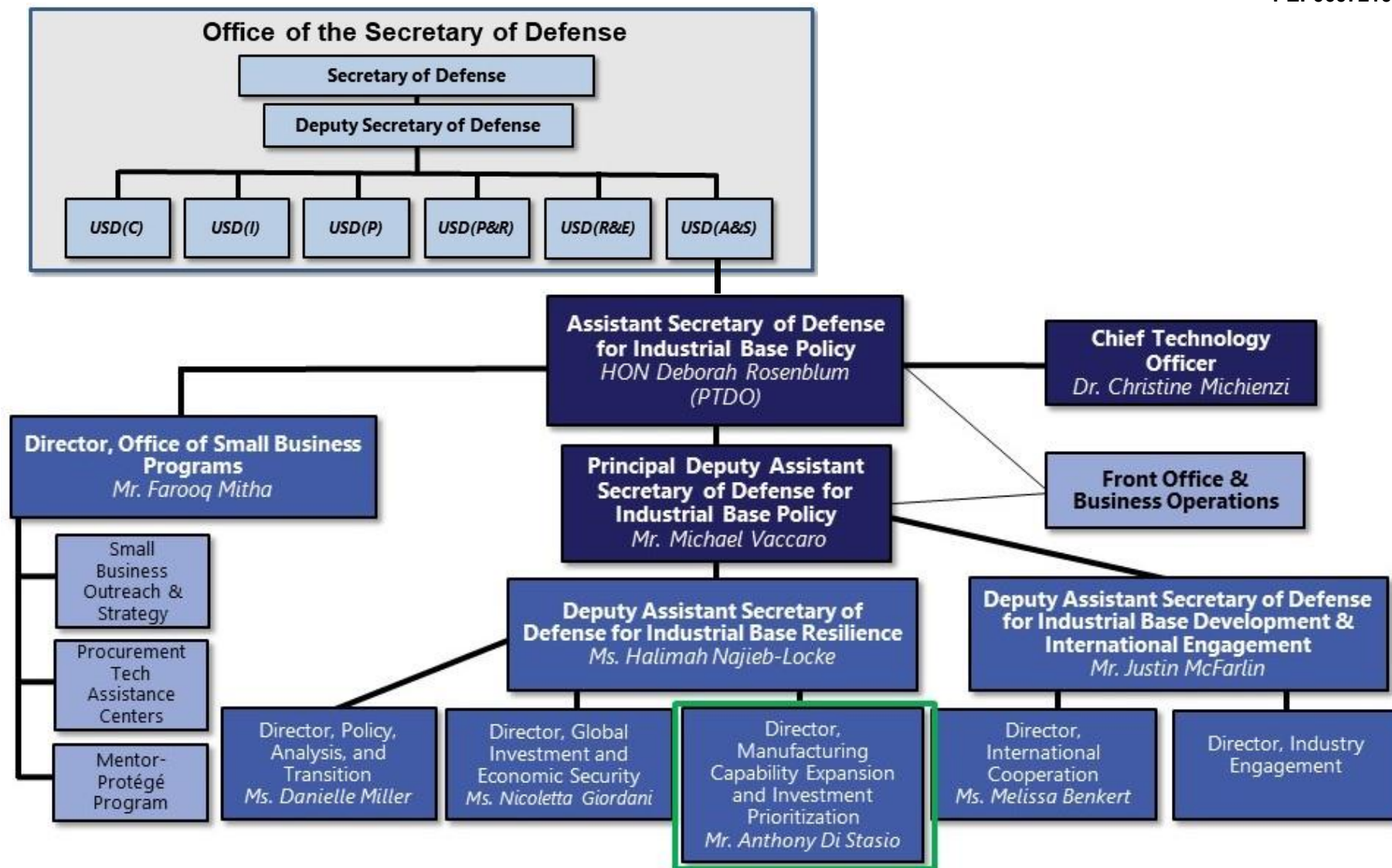
“The war in Ukraine highlights the criticality of a vibrant Defense Industrial Base for the United States and its allies and partners. It must not only be capable of rapidly manufacturing proven capabilities needed to defend against adversary aggression, but also empowered to innovate and creatively design solutions as battlefield conditions evolve.”

2022 National Security Strategy



IBP Organizational Structure

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IBAS Program Quick-Look

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Building the “Next Generation of the Arsenal of Democracy” through execution of the Industrial Base Analysis and Sustainment (IBAS) Program

Mission: Strengthen the competitive posture of the U.S. Defense Industrial Base (DIB) in the era of great powers and global competition

Vision: A modern industrial base that fortifies traditional DIB capabilities and forges emerging sectors to respond at will to national security requirements

Priorities:

- **Prepare the defense industrial workforce** – Promote, elevate, and accelerate industrial talent pipelines
- **Ready the modern DIB** – Advance and sustain traditional defense manufacturing sectors
- **Prepare for the future** – Identify, attract, and cultivate emerging defense sectors
- **Assess and shape the risk** – Mitigate supply chain vulnerabilities within the global DIB
- **Build and strengthen partnerships** – across the global DIB

Statutorily Based

10 U.S. Code § 4817. Industrial Base Fund – IBAS Authorities

1. to support the monitoring and assessment of the industrial base
2. to address critical issues in the industrial base relating to urgent operational needs;
3. to support efforts to expand the industrial base; and
4. to address supply chain vulnerabilities.



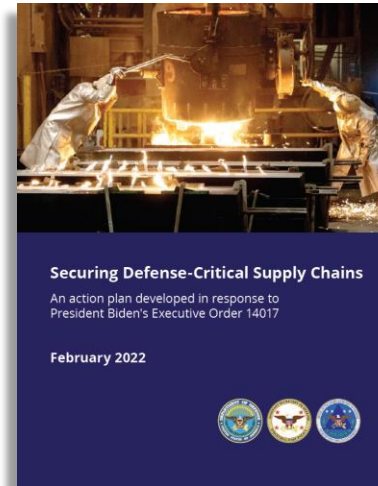
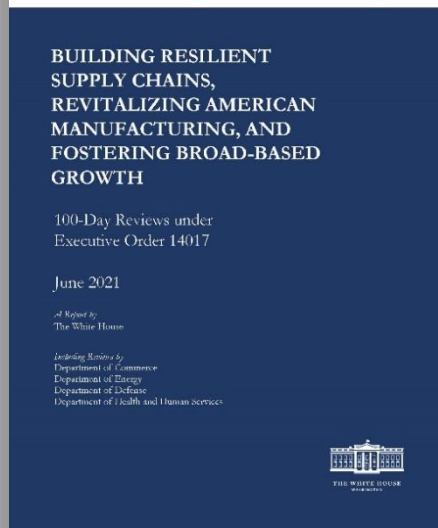
Executive Order (E.O.) 14017

Sustaining Focus Across the IBP Enterprise

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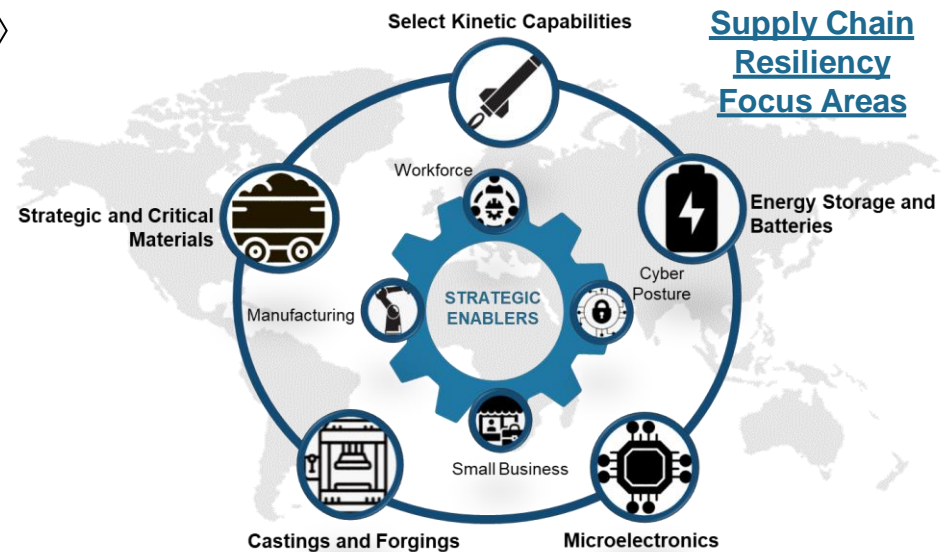
*“The Secretary of Defense, in consultation with the heads of appropriate agencies, shall submit a **report on supply chains for the defense industrial base**.... The report shall identify areas where civilian supply chains are dependent upon competitor nations, as determined by the Secretary of Defense.”*

Executive Order 14017, “America’s Supply Chains” 100-day Supply Chain Review – Published June 8, 2021



“By modernizing our approach to supply chain resilience, DoD can deliver decisive advantages to our Warfighters in a dynamic threat landscape..”

*Deputy Secretary Hicks,
Securing Defense-Critical Supply Chains*





IBAS Acquisition Vehicles

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Cornerstone Other Transaction (OT) Vehicle

- Established February 2018 to be a **Government-run**, integrated industrial base resiliency mechanism to create dynamic relationships across the DIB
- Authority originates from 10 U.S. Code 2371b – Authority of the DoD to carry out certain prototype projects
- DIB resiliency and supply chain assurance initiatives focus on “prototype” projects, capabilities, and capacities supporting a broad range of requirements
- Cornerstone OT strengths:
 - Common Intellectual Property Agreement
 - Common Data Sharing Agreement
 - Common Management Agreement
- Current membership = 762

Other Vehicles

- Other Military Service and defense agency vehicles
- General Services Administration
- Build additional OT



***Cornerstone of the
American Military
Competitive Edge***

<https://cornerstone.army.mil>



How We Do It

"Federated" Approach

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IBAS Program with Military Service and defense agency teams



OSD IBAS
Investment Account

6.7
RDT&E PE

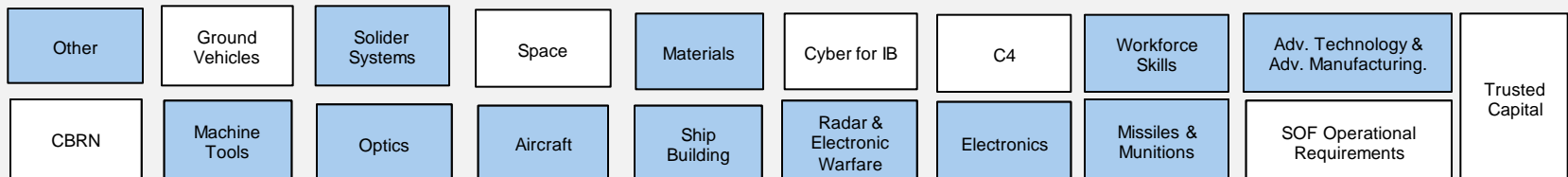
MilService & DA
Investment Accounts

Contract vehicles

Federated approach to requirements development and access
to contracting opportunities for project execution

Projects

Industrial Base Sectors and Communities of Interest



* *Blue shaded boxes represent those sectors currently receiving IBAS funding*

Extend IBAS program reach and resources to produce greater impacts



National Imperative for Industrial Skills (NIIS)

A call to Action

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Aspirational Goals

- **Promote** the prestige of manufacturing and industrial careers
- **Accelerate** training development pipelines
- **Elevate** U.S. manufacturing to world-leading status

Objectives

- **Recruit** - Reinvigorated recruiting for career and technical education
- **Train** - Responsive training pipelines for manufacturing and industry
- **Place** - Hire and retain world-class national industrial workforce

Lines of Effort—Invest and Integrate

- **Focus and spirally develop** a data-driven, program approach
- **Expand recruitment** to increase diversity, equity, and inclusion
- **Establish/Evolve training** curricula, processes, and capacity
- **Engage** local, state, and USG authorities, activities, and resources
- **Build partnerships** beyond DoD and traditional training community—integrate multiple stakeholders across government, industry, associations, and academia

The 'workforce problem' now requires a whole-of-nation solution. The DoD has a key role to help convene multiple stakeholders and catalyze unified effort to de-risk and strengthen industrial workforce pipelines.



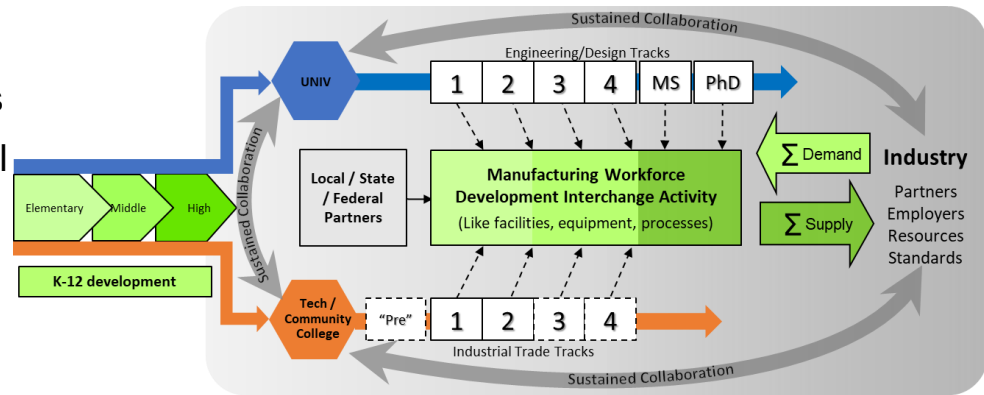
NIIS Approach

Building Capacity & Proven Solutions

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- **Initiative launched in 2020 to invest in prototype projects for industrial workforce development (WFD)**

- WFD ecosystem model provides common touch point; targets all segments/interfaces
- Facilitates multiple approaches to industrial skills recruiting, ed. & training, retention
- Recognizes interplay of post-secondary education and training tracks
 - University—engineering and design
 - Career and technical—industrial trades



- **Key principle: active, sustained partnering with industry, academia, military departments, federal agencies, state governments**
 - Builds partner communities through hands-on involvement and mutual benefit
 - Increases program's momentum through unified effort
- **Creating regionally focused activities to target capacity where skills are most needed**
 - Delivers broad benefits to DIB (private industry) and organic IB
 - Regional efforts established in New England and Virginia
 - New regional projects planned for Great Lakes and West Coast

Projects stress-test all segments of ecosystem and multiple approaches to meet recruiting, education & training, and retention needs; delivering measurable outcomes in the initiative's third year.



NIIS Investment Portfolio

Addressing all Segments of the WF Development Ecosystem

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- 1** *Electronic Manufacturing Technical Education. (Aeromarc, LLC).* MI, OH, AZ, CA, FL, IN, MA, MI, TX, and WI
- 2** *Defense Precision Optics Workforce Development & Technology Ecosystem. (American Center for Optics Manufacturing, Inc. [AmeriCOM]).* NY and NJ
- 3** *Interdisciplinary Center for Advanced Manufacturing Systems (ICAMS).* (Auburn University). AL
- 4** *System Engineering Technician Program (SET)* (Auburn University). AL and TX
- 5** *Shipbuilding Labor Market Analysis (Gulf Coast).* (Govini). AL, MS, FL, and LA
- 6** *Regional Test Bed CNC/CAD/CAM Program.* (Institute for Advanced Composites Manufacturing Innovation [IACMI-The Composites Institute]). TN and NM
- 7** *Accelerated Training in Defense Manufacturing (ATDM).* (Institute for Advanced Learning and Research [IALR]). VA
- 8** *Project MFG. (RD Solutions).* AL, CA, IL, LA, MS, NY, PA, SC, TN, VA, KS, MO, OH, TX, UT, WI
- 9** *NextGen Partnership for Submarine Shipbuilding Supply Chain Workforce Development.* (SE New England Defense Industry Alliance [SENEDIA]). RI, CT, MA, NH, VT, and ME



Skills Imperative efforts meet DIB-dense states' immediate needs and provide proof-of-concept demonstrations to support expansion—over \$150M invested to-date across 18 projects



ICAM Coordination with DoD Offices and Programs

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- **OUSD(A&S) sister office coordination**
 - DPA Title III Program
 - Office of Small Business Programs
 - Office of Local Defense Community Cooperation (OLDCC) and the Defense Manufacturing Communities Support Program (DMCSP)
 - EO14017 Supply Chain Resiliency
- **DoD Programs of Record, e.g.,**
 - Columbia & Virginia Class Submarines
- **Department of the Navy**
 - Shipbuilding Industrial Base Task Force
 - Navy Apprenticeship Program
- **National Youth Guard Challenge Program**
- **OUSD(R&E) workforce development activities**
 - DoD Manufacturing Technology Program and Manufacturing Innovation Institutes
 - DoD Science Technology Engineering and Mathematics (STEM) Program
 - DoD Trusted and Assured Microelectronics Programs (T&AM) Scalable Asymmetric Lifecycle Engagement (SCALE) Program
- **Department of the Army**
 - Aviation and Missile Command, Training and Career Management
- **OSD Civilian Personnel Advisory Service**
 - Digital workforce modernization effort



ICAM Coordination Across U.S. Government

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- **U.S. Department of Commerce**

- Economic Development Administration
 - Good Jobs Challenge, under the American Rescue Plan Act
- Bureau of Economic Analysis (BEA)
- National Institute of Standards and Technology (NIST)
 - Manufacturing Extension Program (MEP)
 - Advanced Manufacturing National Program Office

- **U.S. Department of Education**

- Office of Career, Technical and Adult Education (OCTAE)

- **White House Workforce Interagency Policy Committee**

- Equity Subcommittee
- Apprenticeship Subcommittee
- Labor Market Analytics Subcommittee

- **U.S. Census Bureau**

- Center for Economic Studies

- **U.S. Department of Labor**

- Employment & Training Administration
 - Office of Workforce Investment
 - Office of Apprenticeship Programs
- Bureau of Labor Statistics



ICAM Coordination with Academia and Industry Association Partners

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- **Aerospace Industry Association (AIA)**
 - Supplier Leadership Council
- **Association for Manufacturing Technology**
 - Smartforce Development
- **Center for Regional Economic Competitiveness**
- **Credential Engine**
- **National Coalition of Advanced Technology Centers (NCATC)**
- **National Defense Industrial Association (NDIA)**
 - Manufacturing Division
 - Workforce Development Task Force
- **National Institute of Metalworking Skills (NIMS)**
- **SME**
 - SME Education Foundation
- **Surface Mount Technology Association (SMTA)**
 - Electronic Manufacturing Technical Education
- **U.S. Partnership for Assured Electronics (USPAE)**
- **U.S. Chamber of Commerce Foundation**
 - Talent Pipeline Management Initiative
- **American Association of Community Colleges (AACC)**
- **George Washington University**
 - Program on Skills, Credentials and Workforce Policy; and Non-degree Credentials Research Network



Efficient and Impactful Execution for DoD

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- Built to achieve 21st century industrial dominance
 - Convening and catalyzing on shared interests creates return on investment
 - Investments mitigate competitive issues and improve DIB readiness and force posture
- Strategic vision and partnerships aligned with national defense/economic policies
 - Broad authorities positions the IBAS Program to address challenges and achieve National Security Strategy goals
- Effective early warning “ground sensor” of industrial issues
 - Boots on the ground - walk the floors to inform and update DoD and IBP leadership
 - Tactical response to red and blue disruptions of supply chain
- **Credibility with Industry: “we talk shop” and execute at pace**
 - Full-spectrum operations—problem identification through acquisition award
 - Cornerstone consortia address broad range of industry needs
 - Acquisition strategy to award <120 days

DoD Office of Industrial Base Policy

Our mission is to ensure robust, secure, resilient, and innovative industrial capabilities upon which the Department of Defense can rely in an era of great strategic competition to fulfill current and future Warfighter requirements.



Questions/Comments

